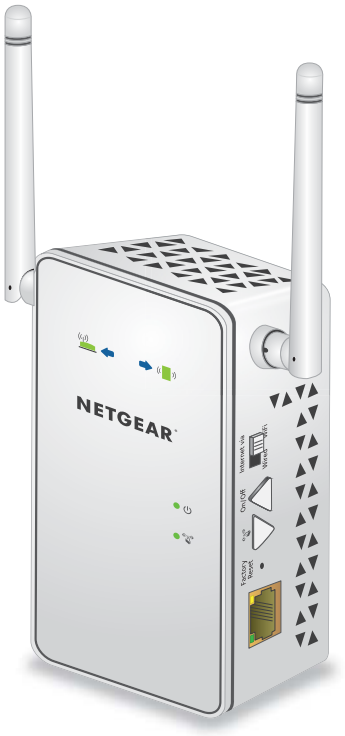
NETGEAR®

AC750 WiFi Range Extender Model EX6100

User Manual



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350 East Plumeria Drive
San Jose, CA 95134
USA

Support

Thank you for selecting NETGEAR products.

After installing your device, locate the serial number on the label of your product and use it to register your product at *https://my.netgear.com*. You must register your product before you can use NETGEAR telephone support. NETGEAR recommends registering your product through the NETGEAR website. For product updates and web support, visit *http://support.netgear.com*.

Phone (US & Canada only): 1-888-NETGEAR.

Phone (Other Countries): Check the list of phone numbers at *http://support.netgear.com/general/contact/default.aspx*.

Compliance

For regulatory compliance information, visit *http://www.netgear.com/about/regulatory*.

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1 Get to Know Your Extender

This chapter covers the following topics:

- *Front Panel and Side Panel LEDs and Buttons*
- *When to Use Your Extender*
- *How the Extender Works*
- *Support for the 801.11ac Networking Standard*

For more information about the topics covered in this manual, visit the support website at *http://support.netgear.com.*

Firmware updates with new features and bug fixes are made available from time to time on *downloadcenter.netgear.com*. Some products can regularly check the site and download new firmware, or you can check for and download new firmware manually. If the features or behavior of your product does not match what is described in this guide, you might need to update your firmware.

Front Panel and Side Panel LEDs and Buttons

The front panel has LEDs. The side panel has a switch, buttons, and an Ethernet port.

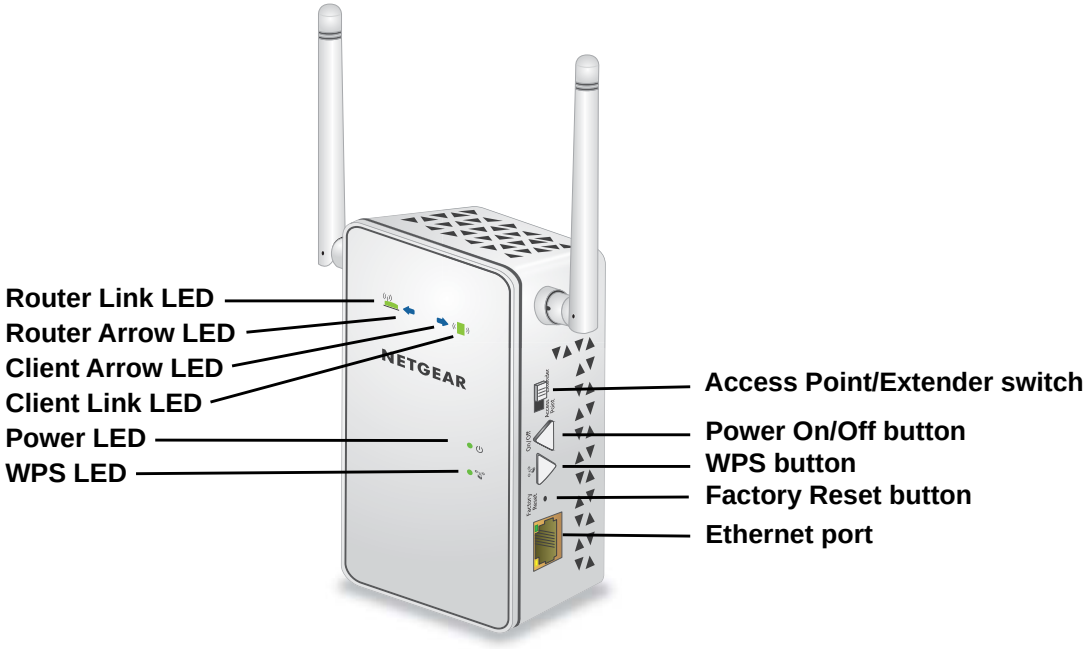
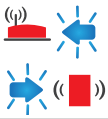


Figure 1. Extender front panel and side panel

Table 1. LEDs

LED	Description
Router Link LED	This LED indicates the connection between the extender and the router or access point. • **Solid green**. Best connection. • **Solid amber**. Good connection. • **Solid red**. Poor connection. • **Off**. No connection.
Client Link LED	This LED indicates the connection between the extender and a computer or mobile device. • **Solid green**. Best connection. • **Solid amber**. Good connection. • **Solid red**. Poor connection. • **Off**. No connection.
Power LED	• **Solid amber**. The extender is booting. • **Solid green**. The extender is powered on. • **Off**. The extender is powered off.

Table 1. LEDs (continued)

LED	Description
WPS LED	• **Solid green**. WiFi security is enabled (WPA or WPA2). • **Blinking green**. A WPS connection is in progress. • **Off**. WiFi security is not enabled.
Router Arrow and Client Arrow 	If the Router Arrow or Client Arrow LED blinks, see *Find the Best Location* on page 15. If no arrow LEDs are lit, the extender is in a good location.

When to Use Your Extender

NETGEAR recommends that you connect to the extender only when your WiFi network connection is poor. Data traffic routed through the extender is inherently slower than traffic routed directly from the network.

How the Extender Works

The extender increases the distance of a WiFi network. The extender can connect to your network's WiFi signal and then boost that signal, or it can connect to your network with a wired connection and work as an access point. You use the Access Point/Extender switch on the side of the extender to select which way you want to use the extender.

Extender as a Booster

This is the most common way to use the extender. The extender connects to your network's WiFi signal and it broadcasts two extender WiFi signals, one in the 2.4 GHz band, and

another in the 5 GHz band. When you are too far away to connect to your network's WiFi signal, you can connect to an extender WiFi signal instead.

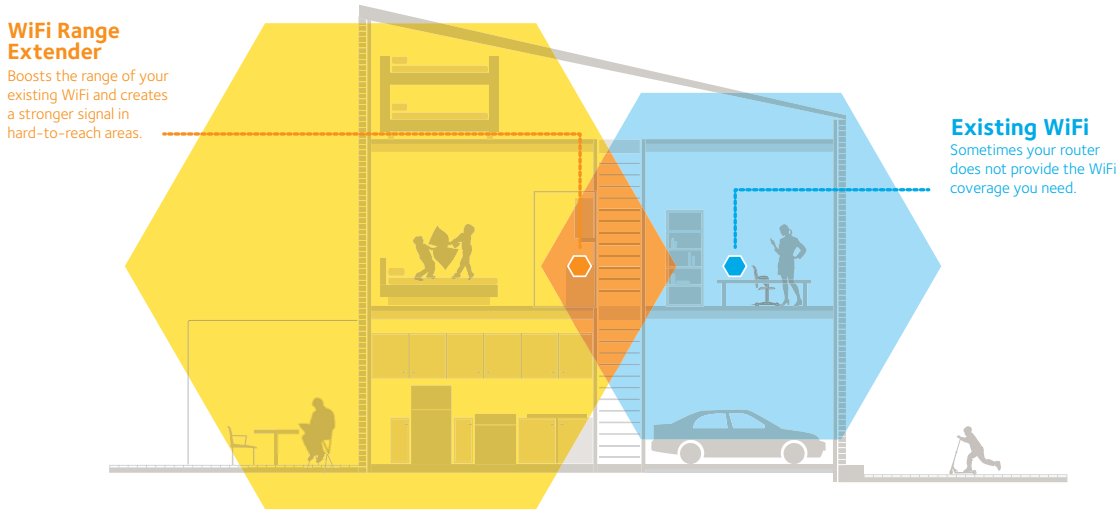

WiFi Range Extender
Boosts the range of your existing WiFi and creates a stronger signal in hard-to-reach areas.
Existing WiFi
Sometimes your router does not provide the WiFi coverage you need.

Figure 2. The extender WiFi signals reach areas outside the range of your router

Extender as an Access Point

You can connect the extender to your router or gateway with a wired connection and use the extender as an 11ac access point.

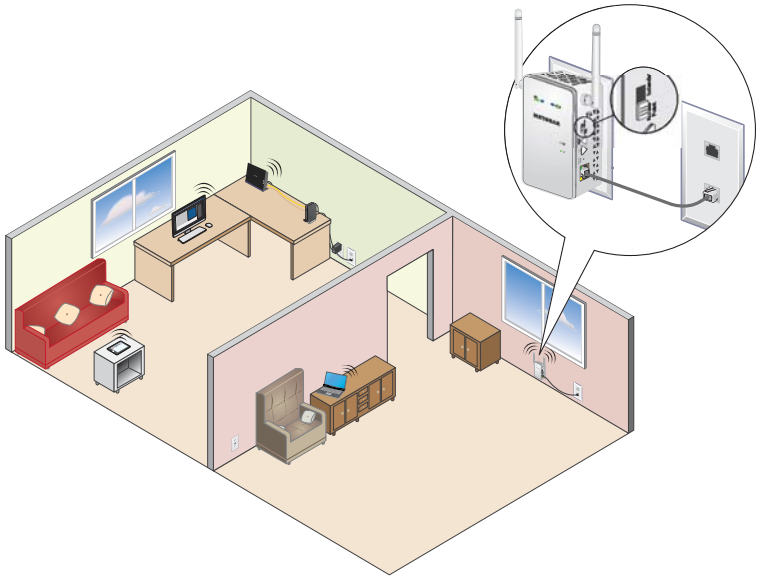


Figure 3. Extender as an access point

Support for the 801.11ac Networking Standard

The extender supports the 802.11ac networking standard. This new standard offers better speed, improved reliability, and more range than older WiFi networking standards. The extender is backward compatible with earlier WiFi standards. However, to get the benefits of 802.11ac, your wireless router must support the 802.11ac WiFi networking standard.

To learn more about the 802.11ac WiFi networking standard, visit *http://www.netgear.com/landing/80211ac/*.

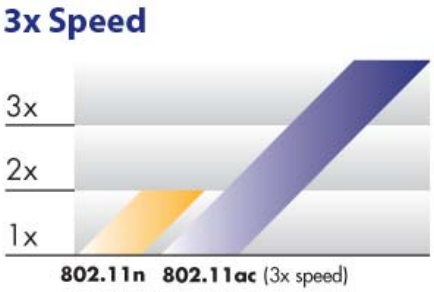


Figure 4. Speed comparison between the 802.11n and 802.11ac standards

Install Your Extender

2

This chapter covers the following topics:

- *Install the Extender as a Booster*
- *Install the Extender as an Access Point*

Install the Extender as a Booster

The extender connects to your network's WiFi signal and then boosts that signal to extend the area that has a WiFi signal.

Place the Extender

NETGEAR recommends that you place the extender near the router during initial setup. Then you can move it farther away from the router as needed to increase the area that has a WiFi signal.

➢ **To place the extender:**

1. Place your extender in the same room as your WiFi router.
2. Plug the extender into an electrical outlet.

   The Power LED ● ⏻ lights green. If the Power LED does not light, press the **Power** button.
3. Make sure that the switch on the extender is set to **Extender**.

Connect to an Existing WiFi Network

To extend the range of your WiFi network, you must connect the extender to your existing WiFi network. You can do this in one of two ways:

- **Connect with WPS**. For more information, see *Connect with WPS* on page 11.
- **Connect with genie Smart Setup**. For more information, see *Connect with NETGEAR genie Smart Setup* on page 12.

Connect with WPS

Wi-Fi Protected Setup (WPS) lets you join a secure WiFi network without typing the network name and password. The WPS button is a physical button on the router or access point. WPS does not support WEP network security. If you are using WEP security, see *Connect with NETGEAR genie Smart Setup* on page 12.

➢ **To connect with WPS:**

1. Press the **WPS** button on the side panel of the extender.

   The WPS LED ● blinks.
2. Within two minutes, press the **WPS** button on your router or access point.

   The WPS LED on the extender lights solid green, the Router Link LED lights, and the extender is connected to your existing WiFi network.

   Note: If the Router Link LED does not light, try again. If it still does not light, see *Connect with NETGEAR genie Smart Setup* on page 12.

3. If your WiFi router supports the 5 GHz band, repeat steps 1 and 2 to connect the extender to the 5 GHz band.
4. Find the new extender network name.

   The extender's wireless network name (SSID) changes to your existing WiFi network name, with **_2GEXT** or **_5GEXT** at the end of the name, depending on whether the extender is connecting to your WiFi network in 2.4 GHz or 5 GHz.

   For example:

   - **Existing WiFi network name**. MyNetworkName
   - **New extended network name**. MyNetworkName_2GEXT
     or
     MyNetworkName_5GEXT
5. Connect your existing WiFi devices to the new extended network.

   Use the same WiFi password that you use for your WiFi router.
6. Unplug the extender and move it to a new location closer to the area with a poor WiFi signal.

   The location that you choose must be within the range of your existing WiFi router network.
7. Plug the extender into an electrical outlet and wait one minute.

   The Power LED lights green. If the Power LED does not light, press the **Power** button.

   Use the Router Link LED on the front panel to help you choose a spot where the extender-to-router connection is optimal.

Connect with NETGEAR genie Smart Setup

You can use a web browser to connect to the extender and set it up.

➢ **To connect with the browser-based Smart Setup:**

1. Make sure that the switch on the extender is set to **Extender**.
2. Use a WiFi network manager on a computer or mobile device to find and connect to one of the extender WiFi networks.

   The extender is dual band, so it has two WiFi networks:

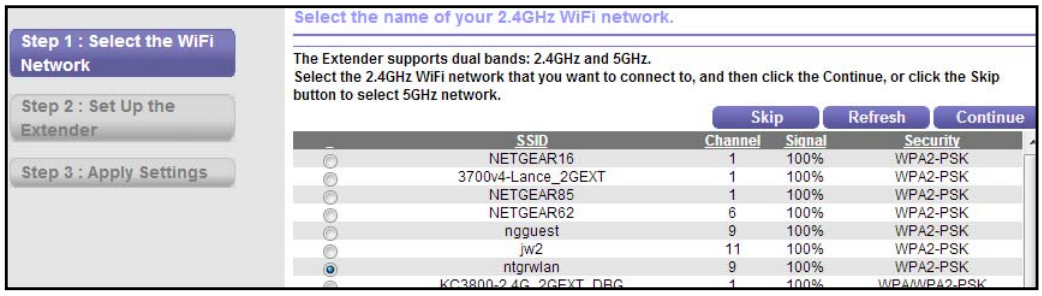
   - **2.4 GHz network**. **EX6100_NETGEAR_2GEXT**
   - **5 GHz network**. **EX6100_NETGEAR_5GEXT**

   After the connection with the computer or mobile device is established, the Client Link LED lights solid green.
3. Open a web browser window from the same computer or mobile device.

   The browser takes you directly to NETGEAR genie Smart Setup.

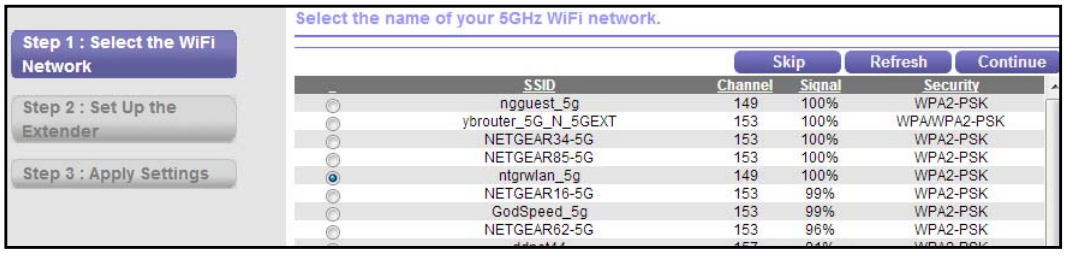
Note: If you are not automatically directed to NETGEAR genie, launch a web browser and enter **www.mywifiext.net** in the address field. Enter **admin** for the user name and **password** for the password.

4. Select a 2.4 GHz WiFi network to extend and click the **Continue** button.

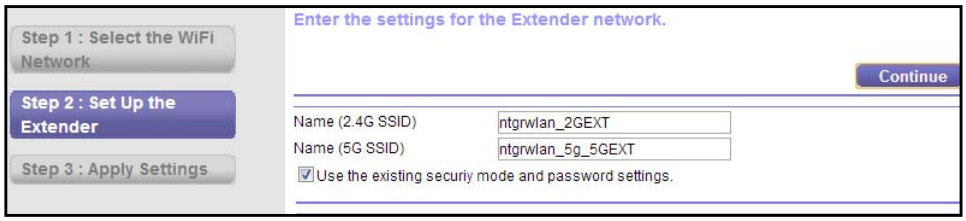

Step 1 : Select the WiFi Network
Step 2 : Set Up the Extender
Step 3 : Apply Settings
Select the name of your 2.4GHz WiFi network.
The Extender supports dual bands: 2.4GHz and 5GHz.
Select the 2.4GHz WiFi network that you want to connect to, and then click the Continue, or click the Skip button to select 5GHz network.
Skip
Refresh
Continue
SSID
Channel
Signal
Security
NETGEAR16 1 100% WPA2-PSK
3700v4-Lance_2GEXT 1 100% WPA2-PSK
NETGEAR85 1 100% WPA2-PSK
NETGEAR62 6 100% WPA2-PSK
ngguest 9 100% WPA2-PSK
jw2 11 100% WPA2-PSK
ntgrwlan 9 100% WPA2-PSK

5. Type the network password (also called passphrase or security key) in the **Password** field, and click the **Continue** button.
6. Select a 5 GHz WiFi network to extend and click the **Continue** button.

   If your router does not support the 5 GHz band, click the **Skip** button.

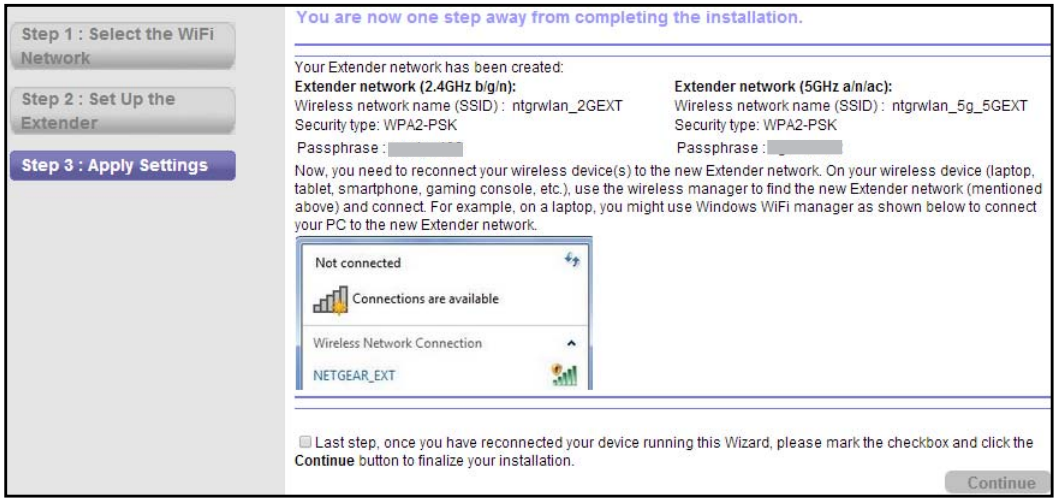


7. Type the network password (also called passphrase or security key) in the **Password** field, and click the **Continue** button.
8. Select the **Private Network** or **Public Network** radio button, and click the **Continue** button.
9. Enter names (SSIDs) for your new extender WiFi network in the **Name (2.4G SSID)** and **Name (5G SSID)** fields and click the **Continue** button.

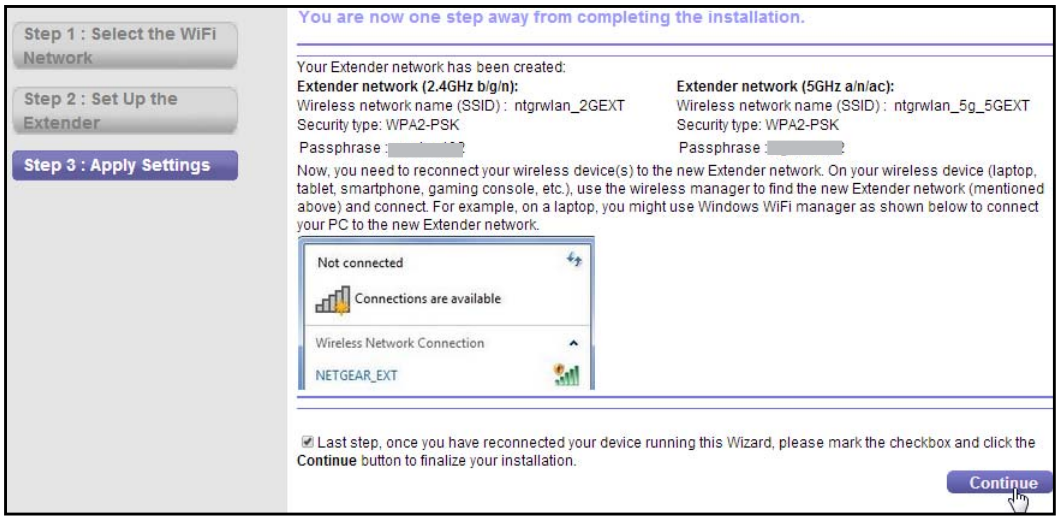

Step 1 : Select the WiFi Network
Step 2 : Set Up the Extender
Step 3 : Apply Settings
Enter the settings for the Extender network.
Continue
Name (2.4G SSID)
ntgrwlan_2GEXT
Name (5G SSID)
ntgrwlan_5g_5GEXT
Use the existing securiy mode and password settings.

Note: You can use the same security settings as your existing network by selecting the check box.

The settings are applied and the following screen displays:


Step 1 : Select the WiFi Network
Step 2 : Set Up the Extender
Step 3 : Apply Settings
You are now one step away from completing the installation.
Your Extender network has been created:
Extender network (2.4GHz b/g/n):
Wireless network name (SSID) : ntgrwlan_2GEXT
Security type: WPA2-PSK
Passphrase :
Extender network (5GHz a/n/ac):
Wireless network name (SSID) : ntgrwlan_5g_5GEXT
Security type: WPA2-PSK
Passphrase :
Now, you need to reconnect your wireless device(s) to the new Extender network. On your wireless device (laptop, tablet, smartphone, gaming console, etc.), use the wireless manager to find the new Extender network (mentioned above) and connect. For example, on a laptop, you might use Windows WiFi manager as shown below to connect your PC to the new Extender network.
Not connected
Connections are available
Wireless Network Connection
NETGEAR_EXT
Last step, once you have reconnected your device running this Wizard, please mark the checkbox and click the Continue button to finalize your installation.
Continue

10. Use a WiFi network manager on the computer or mobile device to connect to the extender's newly created WiFi network.
11. Use your password to connect.
12. Select the check box and click the **Continue** button.


Step 1 : Select the WiFi Network
Step 2 : Set Up the Extender
Step 3 : Apply Settings
You are now one step away from completing the installation.
Your Extender network has been created:
Extender network (2.4GHz b/g/n):
Wireless network name (SSID) : ntgrwlan_2GEXT
Security type: WPA2-PSK
Passphrase :
Extender network (5GHz a/n/ac):
Wireless network name (SSID) : ntgrwlan_5g_5GEXT
Security type: WPA2-PSK
Passphrase :
Now, you need to reconnect your wireless device(s) to the new Extender network. On your wireless device (laptop, tablet, smartphone, gaming console, etc.), use the wireless manager to find the new Extender network (mentioned above) and connect. For example, on a laptop, you might use Windows WiFi manager as shown below to connect your PC to the new Extender network.
Not connected
Connections are available
Wireless Network Connection
NETGEAR_EXT
Last step, once you have reconnected your device running this Wizard, please mark the checkbox and click the Continue button to finalize your installation.
Continue

13. Unplug the extender and move it to a new location closer to the area with a poor WiFi signal.

    The location you choose must be within the range of your existing WiFi router network.

14. Plug the extender into an electrical outlet and wait one minute.

    The Power LED ● ⏻ lights green. If the Power LED does not light, press the **Power** button.

15. Use the Router Link LED on the front panel to help you choose a spot where the extender-to-router connection is optimal.

Find the Best Location

If the WiFi signal is weak, the first time you join the extender network, an arrow LED blinks for two minutes. If this happens, adjust the position of the extender. The arrow LEDs act as follows:

- **No arrow LEDs are lit**. The extender is in a good location.
- **Left arrow blinks**. Move the extender closer to the router.
- **Right arrow blinks**. Move the computer or mobile device closer to the extender.

Extender Performance

These extender LEDs indicate a WiFi connection:

- WiFi signal between the router and the extender
- WiFi signal between the extender and the computer or mobile device

The LEDs are color coded:

- Green indicates the best connection.
- Amber indicates a good connection.
- Red indicates a poor connection.

An LED that is off indicates no WiFi connection.

Connect a Computer or Device to the Ethernet Port

You can use an Ethernet cable to connect a computer or device to the Ethernet port on the extender. Here are some examples of when you might want to do this:

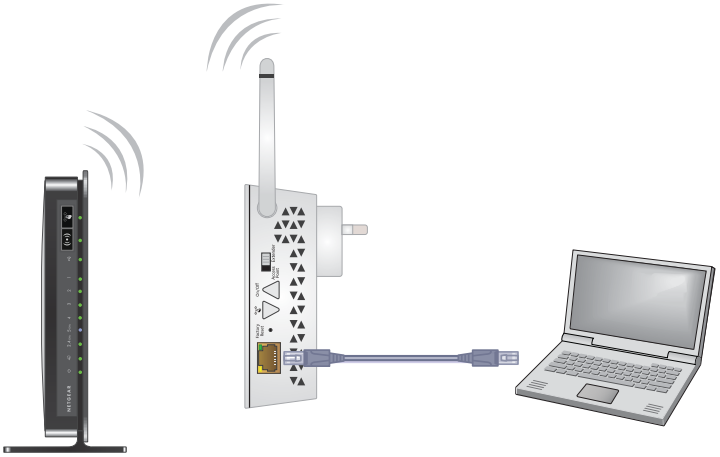
- You want to use a computer to log in to the extender to view or change its settings, but you are having trouble connecting to the extender WiFi networks.
- You have already installed the extender and now you want to connect a device to the extender's Ethernet port.

If you are using the extender as an access point, then you have already used the Ethernet port to connect the extender to your router. if you disconnect this cable, the extender will no longer be connected to your existing network.

➢ **To connect a computer to the extender Ethernet port:**

1. Install the extender so that it is connected to your existing network with a WiFi link.

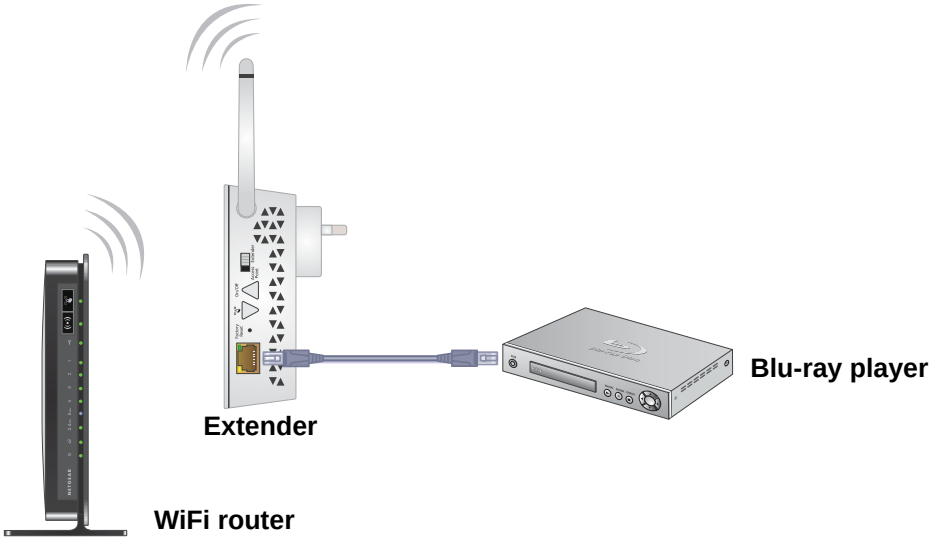
2. Connect an Ethernet cable to the Ethernet port on the extender and to an Ethernet port on your computer.



The computer connects to the extender. Your computer might display a message notifying you of an Ethernet connection.

- **To connect a device to the extender Ethernet port:**

1. Install the extender so that it is connected to your existing network with a WiFi link.
2. Connect an Ethernet cable to the Ethernet port on the extender and to an Ethernet port on your device.



The device connects to the extender. Now, the device can access your existing WiFi network through the extender.

Install the Extender as an Access Point

You can also use the extender as a WiFi access point, which creates an AC750 WiFi hotspot within your local network.

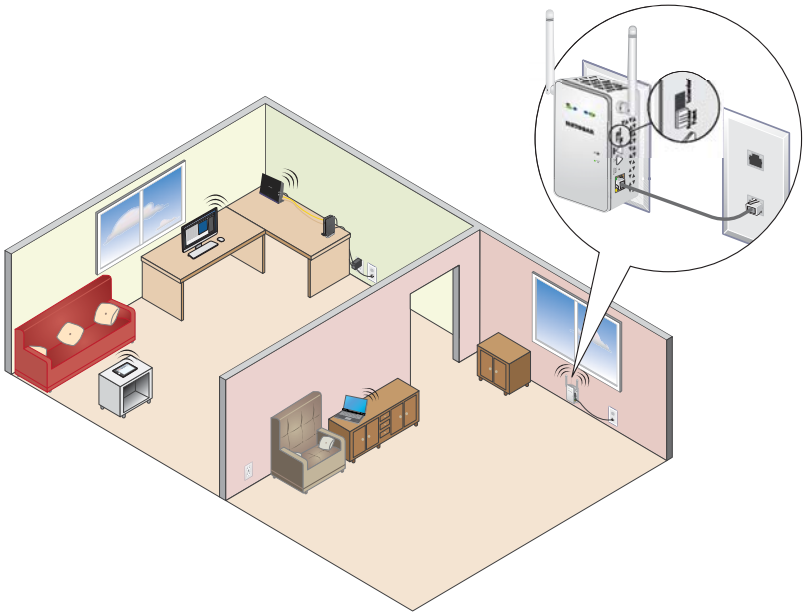


Figure 5. Extender as an access point

➢ **To install the extender as an access point:**

1. Set the Access Point/Extender switch to **Access Point**.
2. Plug the extender into an electrical outlet near a router Ethernet LAN port or a remote Ethernet jack that has access to your local area network (LAN).
3. Use an Ethernet cable to connect the extender to the router Ethernet LAN port or the remote Ethernet LAN jack with LAN access.

   The extender joins the LAN and creates a WiFi hotspot.
4. On your computer or mobile device, find and join a WiFi extender network.

   The extender is dual band, so it has two WiFi networks:

   - **2.4 GHz network**. EX6100_NETGEAR_2GEXT
   - **5 GHz network**. EX6100_NETGEAR_5GEXT

   When you join the network, the extender Client Link LED lights to show that you are connected.
5. Launch a web browser and enter **www.mywifiext.net** in the address field.
6. Enter **admin** for the user name and **password** for the password.

   NETGEAR genie displays and detects the Internet connection.
7. Follow the genie steps to set up WiFi security for both WiFi networks.

Manage the Extender Network and Settings

3

This chapter covers the following topics:

- *Log In to the Extender After Initial Setup*
- *Change the admin Password*
- *Set Up Password Recovery for admin*
- *Use the WPS Wizard for WiFi Connections*
- *View or Change Advanced Wireless Settings*
- *View or Change the WPS Settings*
- *Set Up a Wireless Access List*
- *Manage Profiles*
- *Operating Mode*

Log In to the Extender After Initial Setup

After installation, you can log in to the extender to view or change its settings.

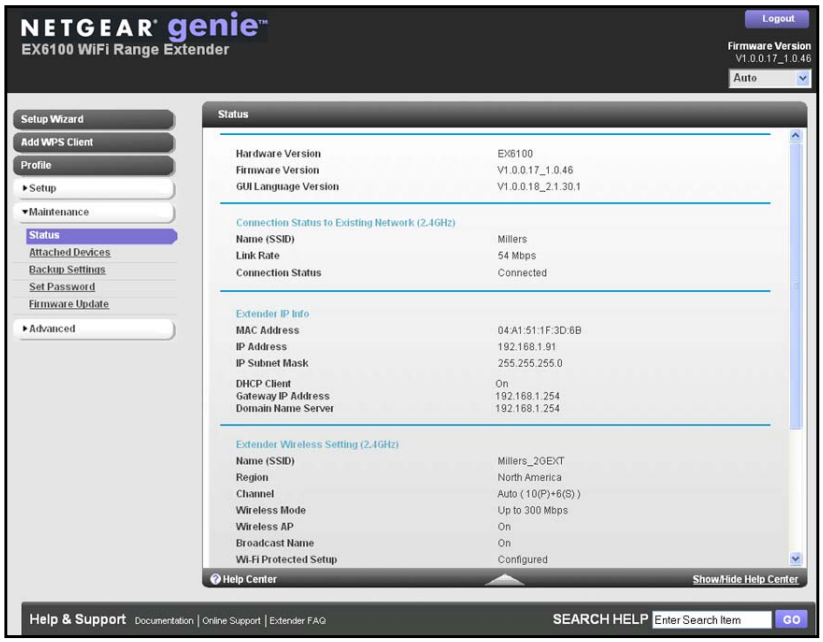
➢ **To log in to the extender after the initial setup:**

1. Connect a computer or mobile device to the extender's network.
2. Launch a web browser and enter **www.mywifiext.net** in the address field.

   A login screen displays.
3. Enter **admin** for the user name and **password** for the password.

   If your extender has an Internet connection, the extender automatically checks for new firmware at the NETGEAR website.

   The Status screen displays.



Change the admin Password

The user name to access the extender is admin, and its default password is password. NETGEAR strongly recommends that you set a more secure password.

➢ **To change the password for the extender:**

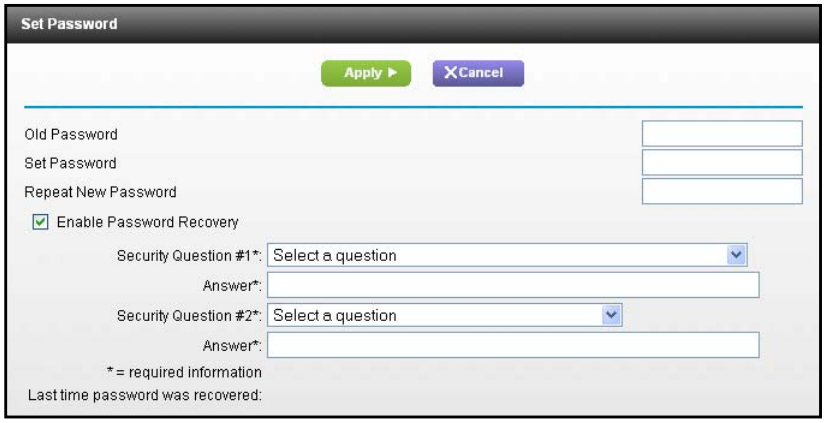
1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.

3. Type **admin** for the user name and **password** for the password.

   If you already changed the password and want to change it again, type your personalized password.

4. Select **Maintenance > Set Password**.



5. (Optional) Select the **Enable Password Recovery** check box.

   NETGEAR recommends that you enable password recovery. This feature lets you recover the password if it is forgotten. Password recovery is supported in the Internet Explorer, Firefox, and Chrome browsers, but not in the Safari browser.

6. If you enabled password recovery, select two security questions and provide answers to them.
7. Type the old password.
8. Type the new password twice.
9. Click the **Apply** button.

   Your settings are saved.

Set Up Password Recovery for admin

NETGEAR recommends that you enable password recovery if you change the password for the extender user name admin. Then you can recover the password if it is forgotten. This recovery process is supported in the Internet Explorer, Firefox, and Chrome browsers, but not in the Safari browser.

➢ **To set up password recovery:**

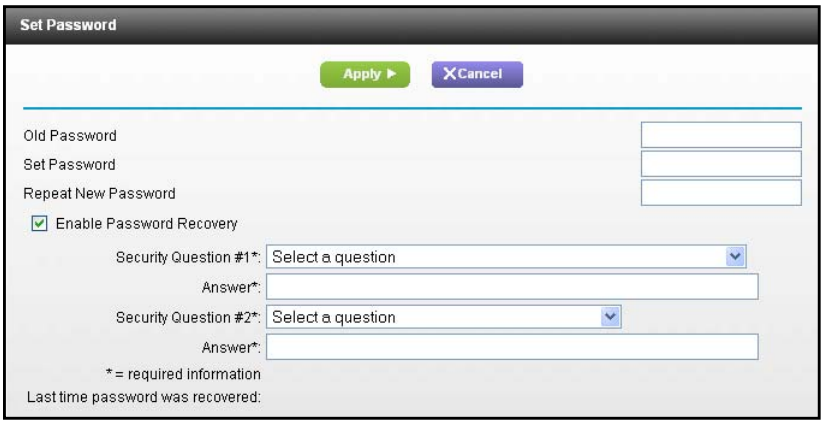
1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.

3. Type **admin** for the user name and **password** for the password.

If you already changed the password and want to change it again, type your personalized password.

4. Select **Maintenance > Set Password**.



5. Select the **Enable Password Recovery** check box.
6. Select two security questions and provide answers to them.
7. Click the **Apply** button.

   Your settings are saved.

Use the Smart Setup to Connect the Extender to a Network

The first time that you use a browser to connect to the extender to install it, the NETGEAR genie installation wizard displays. If you want to use a wizard to set up the extender again, you can log in to the extender and use the Smart Wizard.

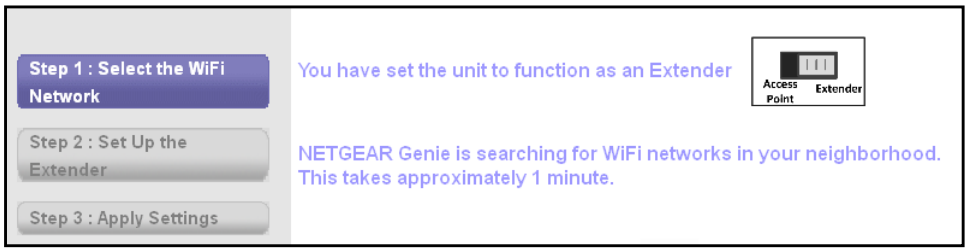
➢ **To use Smart Setup to connect the extender to a WiFi network:**

1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.
3. Type **admin** for the user name and **password** for the password.

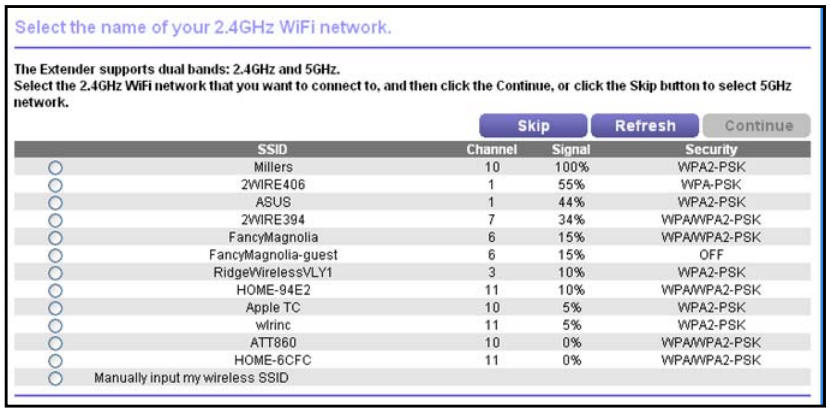
   If you already changed the password, type your personalized password.

4. Select **Smart Setup**.


Step 1 : Select the WiFi Network
Step 2 : Set Up the Extender
Step 3 : Apply Settings
You have set the unit to function as an Extender
Access Point
Extender
NETGEAR Genie is searching for WiFi networks in your neighborhood.
This takes approximately 1 minute.

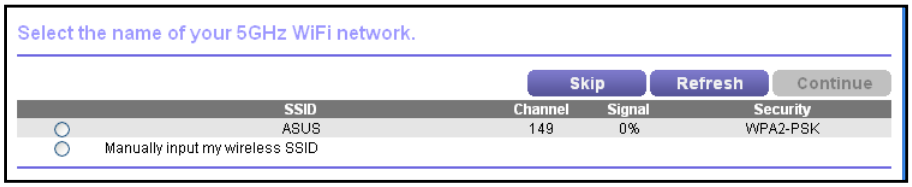
The Smart Setup displays the switch setting on your extender. In this example, the switch is set to Extender, which is the correct setting if you want your extender to use WiFi to connect to your network.

The extender finds the 2.4 GHz wireless networks in your area and displays a list.


Select the name of your 2.4GHz WiFi network.
The Extender supports dual bands: 2.4GHz and 5GHz.
Select the 2.4GHz WiFi network that you want to connect to, and then click the Continue, or click the Skip button to select 5GHz network.
Skip
Refresh
Continue
SSID Channel Signal Security
Millers 10 100% WPA2-PSK
2WIRE406 1 55% WPA-PSK
ASUS 1 44% WPA2-PSK
2WIRE394 7 34% WPAWPA2-PSK
FancyMagnolia 6 15% WPAWPA2-PSK
FancyMagnolia-guest 6 15% OFF
RidgeWirelessVLY1 3 10% WPA2-PSK
HOME-94E2 11 10% WPAWPA2-PSK
Apple TC 10 5% WPA2-PSK
wlrinc 11 5% WPA2-PSK
ATT860 10 0% WPAWPA2-PSK
HOME-6CFC 11 0% WPAWPA2-PSK
Manually input my wireless SSID

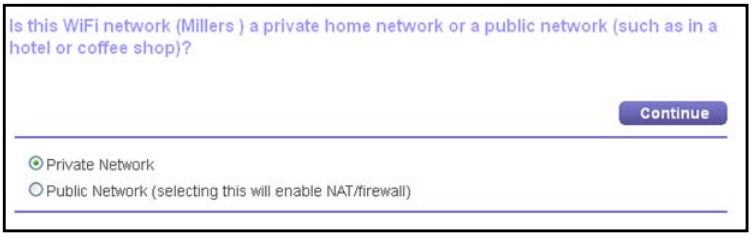
5. To select the network you want the extender to join, do one of the following:
   - Select the radio button for the network.
   - Select the **Manually input my wireless SSID** radio button and type the name of the network.
6. Enter the security settings for the network that you selected.

   The extender finds the 5 GHz WiFi networks in your area and prompts you to select a 5 GHz WiFi network.



7. If your router or gateway broadcasts a 5 GHz WiFi network, select it from the list. Otherwise, click the **Skip** button.

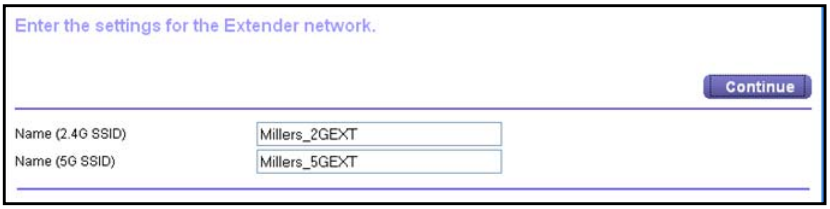
The extender prompts you to specify whether the network is private or public.


Is this WiFi network (Millers) a private home network or a public network (such as in a hotel or coffee shop)?
Continue
Private Network
Public Network (selecting this will enable NAT/firewall)

8. Specify if the network that you selected is private or public:
   - If your network is private, leave the **Private Network** radio button selected.
   - If you are connecting the extender to a public network, select the **Public Network** radio button.

     Selecting the **Public Network** radio button enables a firewall to protect your computer from others who are sharing this public network.
9. Click the **Continue** button.

   You are prompted to name the extender networks.



   By default, the extender network names are the same as the networks that you selected with _2GEXT and _5GEXT at the end.
10. Either change the names or leave them as they are, then click the **Continue** button.

    The settings are applied to the extender.

Use the WPS Wizard for WiFi Connections

The WPS Wizard helps you add a wireless computer or device to the extender's WiFi networks without typing the WiFi password. WPS does not support WEP network security. If you are using WEP security, see *Connect with NETGEAR genie Smart Setup* on page 12.

Note: For instructions about how to use the physical WPS button on the extender, see *Connect with WPS* on page 11.

➢ **To use the WPS Wizard:**

1. Launch a web browser from a computer or wireless device that is connected to the network.

2. In the address field of your browser, enter **http://www.mywifiext.net**.

   A login screen displays.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type http://www.mywifiext.net in your browser.

3. Type **admin** for the user name and type your password.

   If you have not yet personalized your password, type **password** for the password.

4. Select **ADVANCED > WPS Wizard**.
5. Click the **Next** button.
6. Select the radio button for the setup method that you want to use:
   - **Push button**. Click the **WPS** button on this screen.
   - **PIN Number**. The screen adjusts. Enter the client security PIN, and click the **Next** button.
7. Within two minutes, go to the client device and use its WPS software to connect to the WiFi network.

   The WPS process automatically sets up your wireless computer with the network password when it connects. The extender WPS screen displays a confirmation message.

View or Change Advanced Wireless Settings

Use care when changing the wireless settings. Incorrect settings might disable the extender's WiFi networks unexpectedly.

➢ **To view or change the advanced wireless settings:**

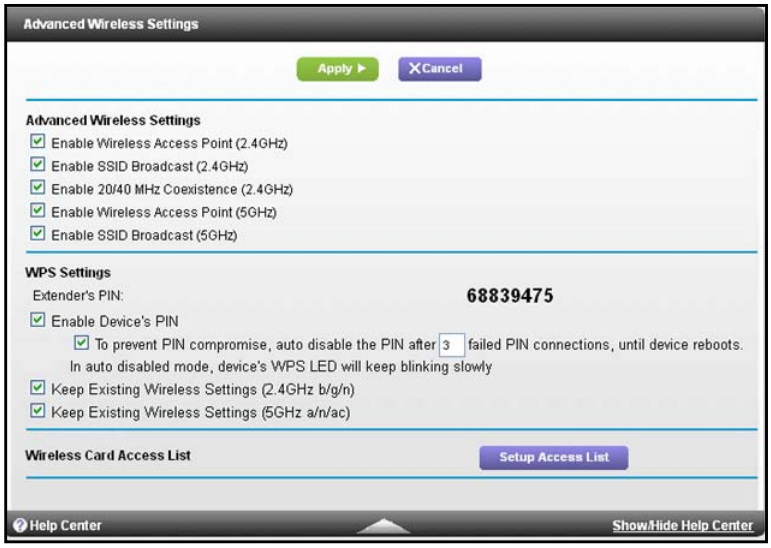
1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.

3. Type **admin** for the user name and type your password.

   If you have not yet personalized your password, type **password** for the password.

4. Select **Advanced > Wireless Settings**.


Advanced Wireless Settings
Apply
Cancel
Advanced Wireless Settings
Enable Wireless Access Point (2.4GHz)
Enable SSID Broadcast (2.4GHz)
Enable 20/40 MHz Coexistence (2.4GHz)
Enable Wireless Access Point (5GHz)
Enable SSID Broadcast (5GHz)
WPS Settings
Extender's PIN:
68839475
Enable Device's PIN
To prevent PIN compromise, auto disable the PIN after 3 failed PIN connections, until device reboots.
In auto disabled mode, device's WPS LED will keep blinking slowly
Keep Existing Wireless Settings (2.4GHz b/g/n)
Keep Existing Wireless Settings (5GHz a/n/ac)
Wireless Card Access List
Setup Access List
Help Center
Show/Hide Help Center

All the check boxes are selected by default.

5. In the Advanced Wireless Settings section of the screen, select or clear the check boxes:
   - **Enable Wireless Access Point (2.4 GHz)**. When this check box is selected, the extender allows WiFi connections in the 2.4 GHz band. Clearing this check box prevents wireless devices from connecting to the extender in the 2.4 GHz band. LAN devices can still connect to the extender over an Ethernet cable.
   - **Enable SSID Broadcast (2.4 GHz)**. When this check box is selected, the extender broadcasts its wireless network name (SSID) for the 2.4 GHz band. Clearing this check box hides the extender's 2.4 GHz network name. In such a situation, this network name does not display in a WiFi network manager. A user who wants to join this hidden network must know its network name.
   - **Enable 20/40 MHz Coexistence (2.4 GHz)**. The extender 2.4 GHz WiFi network can run in either 40 MHz mode or 20 MHz mode. When this check box is selected, the extender uses 40 MHz mode unless a nearby WiFi network is using 40 MHz mode. If that happens, the extender uses 20 MHz mode to coexist with that network.
   - **Enable Wireless Access Point (5 GHz)**. When this check box is selected, the extender allows WiFi connections in the 5 GHz band. Clearing this check box prevents wireless devices from connecting to the extender in the 5 GHz band. LAN devices can still connect to the extender over an Ethernet cable.
   - **Enable SSID Broadcast (5 GHz)**. When this check box is selected, the extender broadcasts its wireless network name (SSID) for the 5 GHz band. Clearing this check box hides the extender's 5 GHz network name. In such a situation, this network name does not display in a WiFi network manager. A user who wants to join this hidden network must know its network name.
6. Click the **Apply** button.

View or Change the WPS Settings

Use care when changing the wireless settings. Incorrect settings might disable the extender's WiFi networks unexpectedly.

➢ **To view or change the advanced wireless settings:**

1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.
3. Type **admin** for the user name and type your password.

   If you have not yet personalized your password, type **password** for the password.
4. Select **Advanced > Wireless Settings**.

Advanced Wireless Settings
Apply
Cancel
Advanced Wireless Settings
Enable Wireless Access Point (2.4GHz)
Enable SSID Broadcast (2.4GHz)
Enable 20/40 MHz Coexistence (2.4GHz)
Enable Wireless Access Point (5GHz)
Enable SSID Broadcast (5GHz)
WPS Settings
Extender's PIN:
68839475
Enable Device's PIN
To prevent PIN compromise, auto disable the PIN after 3 failed PIN connections, until device reboots.
In auto disabled mode, device's WPS LED will keep blinking slowly
Keep Existing Wireless Settings (2.4GHz b/g/n)
Keep Existing Wireless Settings (5GHz a/n/ac)
Wireless Card Access List
Setup Access List
Help Center
Show/Hide Help Center

   In the WPS Settings section of the screen displays the extender's PIN. You cannot change this number.
5. In the WPS Settings section of the screen, change the settings as needed:
   - **Enable Device's PIN**. By default, this check box is selected so that it is possible to use the WPS PIN method to connect to the extender's network.
   - T**o prevent PIN compromise...** By default, this check box is selected. This feature lets you specify the maximum number of times someone can try to enter the extender's PIN to connect with WPS before the extender disables its PIN.
   - **Keep Existing Wireless Settings (2.4 GHz b/g/n)**. By default, this check box is selected so that the SSID and passphrase stay the same when you use WPS to connect to the 2.4 GHz band. NETGEAR recommends that you leave this check box selected.

- **Keep Existing Wireless Settings (5 GHz a/n/ac)**. By default, this check box is selected so that the SSID and passphrase stay the same when you use WPS to connect to the 5 GHz band. NETGEAR recommends that you leave this check box selected.

6. Click the **Apply** button.

Set Up a Wireless Access List

By default, any wireless device that is configured with the correct network name (SSID) can access the extender's WiFi networks. For increased security, you can restrict access to the extender's WiFi networks so that only wireless devices with the MAC addresses that you add to an access list can connect.

Each network device has a MAC address, which is a unique 12-character physical address, containing the hexadecimal characters 0–9, a–f, or A–F only, separated by colons (for example, 00:09:AB:CD:EF:01). Typically, the MAC address is on the label of the wireless device. If you do not have access to the label, you can display the MAC address using the network configuration utilities of the computer. You might also find the MAC addresses on the Network Devices screen (see *View Wired and Wireless Network Devices* on page 38).

CAUTION:

If you use a wireless device to set up the access list, add your wireless device to the access list. Otherwise, you are disconnected when you click the **Apply** button. To avoid this situation, use a computer with a wired connection to access the extender.

Before you enable the access list, you must add the MAC addresses of the wireless devices that you want to grant access to the WiFi network of the extender.

➢ **To set up and enable the access list:**

1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

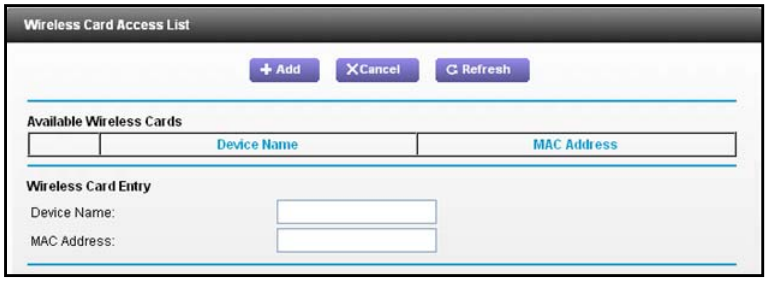
   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.
3. Type **admin** for the user name and type your password.

   If you have not yet personalized your password, type **password** for the password.
4. Select **Advanced > Wireless Settings** and click the **Setup Access List** button.

The Wireless Card Access List screen displays.

5. Click the **Add** button.

   The screen adjusts.



6. In the **Device Name** field, type a name for the wireless device.
7. In the **MAC Address** field, type the MAC address of the wireless device.
8. Click the **Apply** button.
9. Above the Wireless Card Access list, select the **Turn Access Control On** check box.
10. Click the **Apply** button.

    Now only computers and devices in the Wireless Card Access list can join the extender's WiFi networks.

Manage Profiles

Each time the extender connects to a new network, the extender automatically saves the wireless network connection settings in a profile. The first profile is named wifi_profile_001. If the extender connects to more networks, each new profile name is assigned in numerical order.

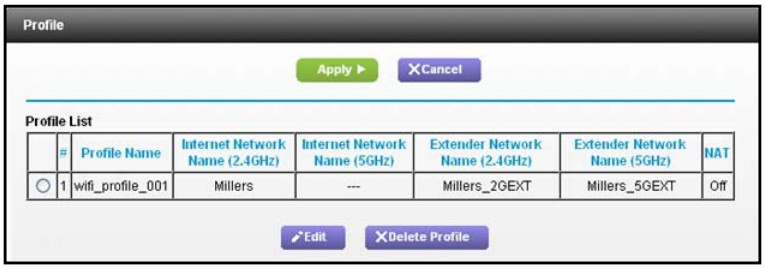
Profiles are handy if you take your extender with you to use in more than one location, such as at home and at an office or hotel. You can edit the profile names and settings and you can delete profiles that you do not want.

➢ **To edit a profile:**

1. Connect a computer or mobile device to the extender's network.
2. Launch a web browser and enter **http://www.mywifiext.net** in the address field.

   A login screen displays.

3. Enter **admin** for the user name and **password** for the password.
4. Select **Profile**.


Profile
Apply
Cancel
Profile List
Profile Name Internet Network Name (2.4GHz) Internet Network Name (5GHz) Extender Network Name (2.4GHz) Extender Network Name (5GHz) NAT
1 wifi_profile_001 Millers --- Millers_2GEXT Millers_5GEXT Off
Edit
Delete Profile

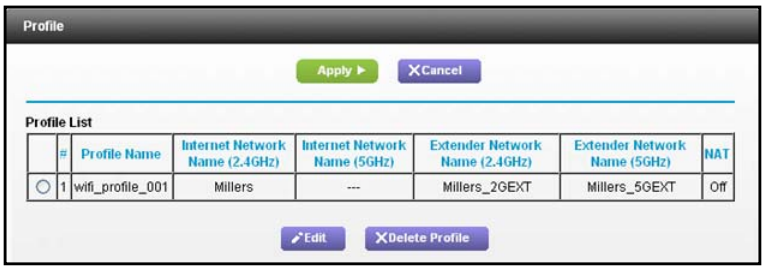
The Profile List displays a profile for each wireless network that the extender has connected to.

5. Select the radio button for the profile.
6. Click the **Edit** button.
7. Change the details of the profile as needed.
8. Click the **Apply** button.

- **To delete a profile:**

1. Connect a computer or mobile device to the extender's network.
2. Launch a web browser and type **http://www.mywifiext.net** in the address field.

   A login screen displays.
3. Enter **admin** for the user name and **password** for the password.
4. Select **Profile**.


Profile
Apply
Cancel
Profile List
Profile Name Internet Network Name (2.4GHz) Internet Network Name (5GHz) Extender Network Name (2.4GHz) Extender Network Name (5GHz) NAT
1 wifi_profile_001 Millers --- Millers_2GEXT Millers_5GEXT Off
Edit
Delete Profile

The Profile List displays a profile for each wireless network that the extender has connected to.

5. Select the radio button for the profile.
6. Click the **Delete Profile** button.

   The profile is removed from the list.

Operating Mode

You can use the extender in Internet Surfing mode or FastLane mode. In Internet Surfing mode, you can connect to the extender through either the 2.4 GHz band or the 5 GHz band and the extender connects to the router in both the 2.4 GHz band and the 5 GHz band. In FastLane mode, you can connect to the extender in only one of the bands and the extender connects to the router in the other band, based on the setting that you select.

The advantage of Internet Surfing mode is that the extender provides two bands for the clients. However, the bandwidth of each band is shared by the connections between the client and the extender and between the extender and the router, which reduces WiFi performance. On the other hand, FastLane provides only one band for the clients to connect to the extender but it offers maximum WiFi performance.

➢ **To view or change the operating mode:**

1. Connect a computer or mobile device to the extender's network.
2. Launch a web browser and enter **http://www.mywifiext.net** in the address field.

   A login screen displays.
3. Enter **admin** for the user name and **password** for the password.
4. Select **Advanced > Operating Mode**.

Operating Mode
Apply
Cancel
Extender Operating mode
Internet Surfing - Connect devices on both 2.4 and 5GHz bands at the same time.
Extends both WiFi bands at the same time (2.4 and 5 GHz), but reduces the WiFi performance.
WiFi Client Device
EX6100 WiFi Range Extender
WiFi AP Router
FastLane Technology – Offers maximum performance but limits connection to one band (2.4 or 5GHz) .
Device-to-extender in 5GHz only and extender-to-router in 2.4GHz only
Device-to-extender in 2.4GHz only and extender-to-router in 5GHz only (Router must support 5GHz band)
Help Center
Show/Hide Help Center

By default, the **Internet Surfing** radio button is selected.

5. Select the radio button for the operating mode that you want to use:
   - **Internet Surfing**.
   - **FastLane Technology**.Select one of the following radio buttons:
     - **Device-to-extender in 5 GHz only and extender-to-router in 2.4 GHz only**
     - **Device-to-extender in 2.4 GHz only and extender-to-router in 5 GHz only**
6. Click the **Apply** button.

Monitor and Maintain the Extender

4

This chapter covers the following topics:

- *Recover the admin Password*
- *Back Up the Extender Configuration*
- *Restore Saved Configuration Settings*
- *Return the Extender to Its Factory Settings*
- *Update the Firmware*
- *View Wired and Wireless Network Devices*

Recover the admin Password

If you have changed the password to access the extender and have set up password recovery, you can recover your password if you have lost it. For information about setting up password recovery, see *Set Up Password Recovery for admin* on page 20.

If you did not set up password recovery and have lost your password, you must reset the extender to factory default settings (see *Return the Extender to Its Factory Settings* on page 35).

➢ **To recover your password to access the extender:**

1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.
3. Click **Cancel**.

   If password recovery is enabled, you are prompted to enter the serial number of the extender. The serial number is on the product label.
4. Enter the serial number of the extender.
5. Click the **Continue** button.

   A screen displays requesting the answers to your security questions.
6. Enter the saved answers to your security questions.
7. Click the **Continue** button.

   A screen displays your recovered password.
8. Click the **Login again** button.

   A login screen displays.
9. With your recovered password, log in to the extender.

Back Up the Extender Configuration

When the extender works correctly after initial setup, NETGEAR recommends that you back up the extender configuration settings. After you have backed up the settings, if you change the extender settings but are not content with the new settings, you can restore the extender backed-up configuration settings.

➢ **To back up the extender configuration settings:**

1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.

3. Type **admin** for the user name and type your password.

   If you have not yet personalized your password, type **password** for the password.

4. Select **Maintenance > Backup Settings**.

5. Click the **Backup** button.
6. Use the **Browse** field to specify a location.

   Your browser saves the configuration file from the extender.

7. If you do not have your browser set up to save downloaded files automatically, locate where you want to save the file.

Restore Saved Configuration Settings

You can restore the configuration file of the extender to a previously saved configuration file.

➢ **To restore the extender configuration settings:**

1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.

3. Type **admin** for the user name and type your password.

   If you have not yet personalized your password, type **password** for the password.

4. Select **Maintenance > Backup Settings**.

5. Click the **Browse** button.
6. Locate and select the previously saved backup file.

   By default, the name of the backup file is `NETGEAR_EX6100.cfg`.

CAUTION:

After you click the **Restore** button, do not try to go online, turn off the extender, shut down the computer, or do anything else to the extender until it finishes restarting!

7. Click the **Restore** button.

   A confirmation pop-up screen displays.
8. Confirm your decision.

   The extender restarts. This process takes about one minute.

Return the Extender to Its Factory Settings

To reset the extender to its factory settings, you can use the **Factory Reset** button or the Erase feature. For information about the factory settings, see *Factory Default Settings* on page 44.

Use the Factory Reset Button to Restore Factory Settings

CAUTION:

This process erases any settings that you have configured in the extender.

➢ **To restore factory settings:**

1. Insert a paper clip into the **Factory Reset** hole and hold it until the Power LED blinks amber.
2. Release the button.

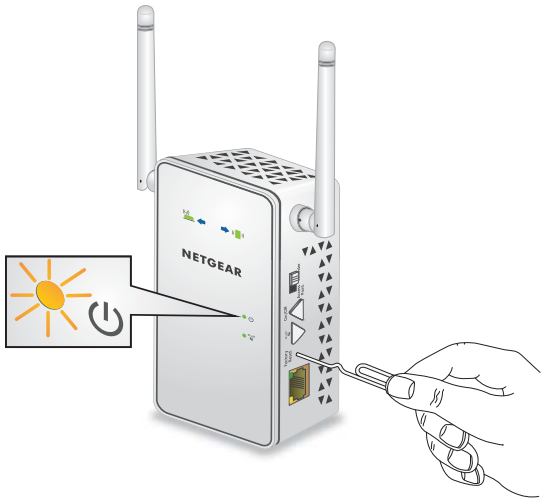
   All the LEDs turn off for about 3 seconds.

   The Power LED lights solid amber for about 30 seconds.

   The Power LED ● ⏻ lights solid green.

   The extender returns to its factory settings.

When you plug in the extender, it detects the position of its Access Point/Extender switch.



Erase the Extender Settings and Return to Factory Settings

CAUTION:

This process erases any settings that you have configured in the extender.

➢ **To erase the extender's current settings:**

1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.
3. Type **admin** for the user name and type your password.

   If you have not yet personalized your password, type **password** for the password.
4. Select **Maintenance > Backup Settings**.

CAUTION:

After you click the **Erase** button, do not try to go online, turn off the extender, shut down the computer, or do anything else to the extender until it finishes restarting!

5. Click the **Erase** button.

   A confirmation pop-up screen displays.

6. Confirm your decision.

   The extender restarts. This process takes about one minute.

Update the Firmware

Unless you changed the settings in the Firmware Update screen previously, the extender is set up to check for new firmware automatically when you log in. You can also check for new firmware.

➢ **To check if new firmware is available and update the firmware:**

1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.

3. Type **admin** for the user name and type your password.

   If you have not yet personalized your password, type **password** for the password.

4. Select **Maintenance > Firmware Update**.

5. Click the **Check** button.
6. If new firmware is available, follow the onscreen prompts to download it onto your computer.

   Note: You might need to unzip the firmware file.

7. Click the **Browse** button.
8. Locate and select the new firmware file.

CAUTION:

After you click the **Upload** button, do not try to go online, turn off the extender, shut down the computer, or do anything else to the extender until it finishes restarting!

9. Click the **Upload** button.

   The firmware update starts and the extender restarts. This process takes a couple of minutes.

View Wired and Wireless Network Devices

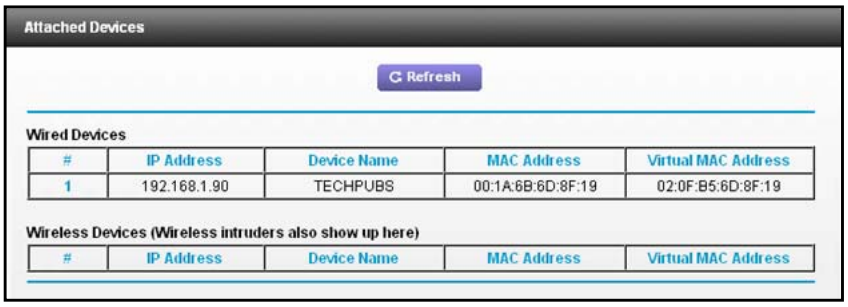
You can view the active wired and wireless devices in both the network to which the extender is connected and the extender network. If you do not recognize a wireless device, it might be an intruder.

➢ **To view devices on the network:**

1. On your computer, launch a web browser.
2. In the address field of your browser, enter **http://www.mywifiext.net**.

   You are prompted to enter a user name and password. If you do not see the login prompt, make sure to include **http://** when you type **http://www.mywifiext.net** in your browser.
3. Type **admin** for the user name and type your password.

   If you have not yet personalized your password, type **password** for the password.
4. Select **Maintenance > Attached Devices**.


Attached Devices
Refresh
Wired Devices
IP Address Device Name MAC Address Virtual MAC Address
1 192.168.1.90 TECHPUBS 00:1A:6B:6D:8F:19 02:0F:B5:6D:8F:19
Wireless Devices (Wireless intruders also show up here)
IP Address Device Name MAC Address Virtual MAC Address

   For each wired and wireless device, the IP address, device name, and MAC address display.
5. (Optional) Click the **Refresh** button.

   The information on the screen is updated.

FAQs and Troubleshooting

5

This chapter covers the following topics:

- *FAQs*
- *Cannot Log In to the Extender*
- *Cannot Join an Extender WiFi Network*

FAQs

This section provides answers for difficulties you might experience with the extender.

1. **Question**. Will the extender work if I connect it to my wireless router with an Ethernet cable?

   It depends. If the switch is set to **Extender**, the extender connects to the router over WiFi. If the switch is set to **Access Point**, the extender connects to the router with an Ethernet cable.

2. **Question**. What are the user name and default password to log in to the extender?

   Answer. If you are online at **http://www.mywifiext.net**, you can use the following user name and password to log in:

   - **User name**. admin
   - **Password**. password

3. **Question**. The web browser setup guide keeps asking me for my network security key (passphrase), and I am sure I have entered the correct passphrase. What can I do?

   The extender is probably placed at the borderline of the range covered by the router or access point. For more information, see *Place the Extender* on page 11.

   If you are using WEP security, make sure that you are typing the wireless key in the correct field.

4. **I am connected to EX6100_NETGEAR_2GEXT or EX6100_NETGEAR_5GEXT and launched a browser. Why can't I see the web browser setup genie**?

   Try these troubleshooting steps:

   - Make sure that your computer is set up to use DHCP (most are).
   - Make sure that the Client Link LED is green and that you have a valid IP address.
   - Relaunch the web browser and type **http://www.mywifiext.net** or **http://www.mywifiext.com** in the address field of the web browser. Enter **admin** for the user name and **password** for the password.

5. **Question**. Is seamless roaming supported? During a VoIP call, when I move to a different location, the call is dropped. What should I do?

   Answer. No, the extender does not support seamless roaming. You might notice performance issues if your network device (laptop, smartphone, or tablet) connects to a different WiFi network. For example, you might connect to the extender WiFi network, begin a call, and then move to the location of your existing network. Your device automatically connects to the network in your current location, which takes a few seconds and might cause your call to be dropped.To prevent this problem, decide which WiFi network you want to use for your VoIP call, and stay within the range of that network.

6. **Question**. My router security is WEP, and I entered the wrong passphrase or security key on the extender. I cannot access the extender anymore. What can I do?

Answer. The extender cannot detect if the WEP passphrase is correct. If you entered the wrong passphrase, your wireless device cannot get the IP address from the extender. You must reset the extender to the factory settings to get the IP address back.

7. **Question**. I have enabled a wireless MAC filter (wireless access control or ACL) on my wireless i router. What should I do when installing the extender?

   Answer. When the wireless device connects through the extender to your router, the MAC address of the wireless device shown on the router is translated to another MAC address. If your router's MAC filter is enabled, the wireless device connects to the extender but cannot get an IP address from the extender and cannot access the Internet. To allow the wireless device to receive an IP address from the extender and access the Internet, you must provide the translated MAC address to the router.

➢ **To get the translated MAC address:**

1. Disable the MAC filter on your router.
2. Turn on the extender and connect all of your wireless devices to the extender.
3. Make sure that the Link Rate LED remains lit.
4. Log in to the router and check the attached devices on the Attached Devices or similar screen.
5. Add any MAC addresses that begin with 02:0F:B5 to your router's MAC filter table.

Cannot Log In to the Extender

If you have trouble connecting to the extender, try to locate the source of the problem:

- Make sure that you use the correct user name and password to log in:
  - **User name**. admin
  - **Password**. The default is password. If you changed the password and enabled password recovery, you can recover the password. See *Recover the admin Password* on page 33.
- If your browser displays an error page, make sure that you include ***http://*** when you type **http://www.mywifiext.net** in the address field of your Internet browser. If you leave it out, you might not be able to connect.
- If you already set up the extender but can no longer connect to it wirelessly, check if the Link Rate LED is off or red.
- If you cannot connect to the extender from your computer with WiFi, you can use an Ethernet cable to connect your computer to the Ethernet port on the extender. For more information, see *Connect a Computer or Device to the Ethernet Port* on page 15.

Cannot Join an Extender WiFi Network

To join a WiFi network, you must know its network name (also called the SSID) so that you can select it. If the network is secure, you must know the passphrase or key. If the extender does not connect to the network that you select, the following message displays:

Connection was not established to the selected network.

If this situation occurs, the cause might be one of the following:

- You might have typed the network name, passphrase, or key incorrectly. Use the Setup Wizard to select a WiFi network from the list with detected networks, and retype the passphrase or key. The passphrase or key is case-sensitive. For example, PASSWORD25 is not the same as Password25 or password25.
- If the extender cannot detect your WiFi network, check to see if your WiFi network is still up. Make sure that the wireless router is turned on. If possible, move the extender closer to the wireless router.
- If the extender Router Link LED is red, a poor wireless connection exists between the wireless router and the extender. You can establish the best connection with a clear line of sight between the extender and the wireless router. Make sure that no physical obstacles exist between the extender and the wireless router, and try to move the extender closer to the wireless router.

If you use the Setup Wizard, and the extender cannot connect to the wireless router or cannot get an IP address from the wireless router, or the wireless router is not connected to the Internet, the Setup Wizard displays the following message:

You are not able to connect to the Internet. Click Continue to run through setup again to connect to your network.

Either run the Setup Wizard again or exit the Setup Wizard and try again later.

Supplemental Information

A

This appendix includes the following sections:

- *Factory Default Settings*
- *Technical Specifications*

Factory Default Settings

The following table includes the factory settings for the extender. You can use the **Factory Reset** button or the Erase feature to return the extender to these settings.. (See *Return the Extender to Its Factory Settings* on page 35.)

Feature	Setting
Setup Wizard	Enabled
Wireless communication	Enabled
Wireless network names (SSID)s	• 2.4 GHz network: EX6100_NETGEAR_2GEXT • 5 GHz network: EX6100_NETGEAR_5GEXT
Security	Disabled
Transmission speed	Auto[1]
Country/region	Varies by region
Operating mode	802.11ac, 802.11n, 802.11g, 802.11b, 802.11a
Data rate	Up to 300 Mbps for 2.4 GHz network and 433 Mbps for 5 GHz network
DHCP	Client enabled

1. *Maximum wireless signal rate (IEEE Standard 802.11). Actual throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.*

Technical Specifications

The following table includes the product specifications.

Extender Specifications	
Network protocol and standards compatibility	Data and routing protocols: TCP/IP, DHCP server and client, DNS relay, NAT (many-to-one)
Power consumption	100-240V~ 50/60Hz, 0.21A maximum
Physical specifications	• Dimensions: 122 x 74 x 38 mm • Weight: 0.213 kg
Environmental	• Operating temperature: 32° to 140°F (0° to 40°C) • Operating humidity: 90% maximum relative humidity, noncondensing • Electromagnetic emissions: Meets requirements of FCC Part 15 Class B.
Interface	• Local: 10BASE-T, 100/1000BASE-Tx, RJ-45 • 802.11ac, 802.11n, 802.11a, 802.11g, 802.11b